Koch, Kristine

From: Koch, Kristine

Sent: Tuesday, June 02, 2015 12:48 PM **To:** James McKenna; Allen, Elizabeth

Cc: Gene Revelas (grevelas @integral-corp.com); Jennifer Woronets

(jworonets@anchorgea.com)

Subject: RE: Follow-up re Ecological Significance

No.

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From: James McKenna [mailto:jim.mckenna@verdantllc.com]

Sent: Tuesday, June 02, 2015 12:41 PM **To:** Koch, Kristine; Allen, Elizabeth

Cc: Gene Revelas (grevelas@integral-corp.com); Jennifer Woronets (jworonets@anchorqea.com)

Subject: Follow-up re Ecological Significance

Kristine and Elizabeth-

I went back to the Final BERA because I thought I recalled a tiered approach to determining ecological significance (i.e., that it was more than just a difference of opinion between the LWG and EPA, but rather based on specific agreed-upon criterion). Here is what I found:

Section 3.1.4 of the BERA states:

"Primary contaminants of ecological significance are those that meet all of the first five of the above six criteria. Primary contaminants of ecological significance are recommended for consideration in developing and evaluating remedial action alternatives in the FS based on the exposure pathways and adverse effect factors considered in the remainder of this BERA. A subset of contaminants posing potentially unacceptable risk at the end of the BERA that meet some of the above criteria, but not to the extent and magnitude as contaminants of primary ecological significance were also identified by EPA as additional contaminants of ecological significance in the BERA. These additional contaminants of ecological significance are recommended for consideration in developing and evaluating remedial action alternatives in the FS based on the exposure pathways and adverse effect factors considered in the remainder of this BERA."

Therefore, there is a clear technical distinction between a "primary" and "additional" contaminant that poses ecological significance. The lists of primary vs. additional contaminants of ecological significance is presented in Section 3 and Section 11, and repeated in the Executive Summary of the BERA as follows:

"PCBs, PAHs, dioxins and furans, and total DDx are the primary contaminants of ecological significance at Portland Harbor (Table ES-7). EPA identified 16 additional contaminants of ecological significance, as defined in Section 3.4.1, which are also listed in Table ES-7."

Also, her is a snapshot of Table ES-7:

Table ES-7. Chemicals Identified as Most Likely to be Contaminants of Ecological Significance

Contaminants of Primary Ecological Significance	
PCBs	Dioxins and furans
PAHs	DDT and its metabolites
Additional Contaminants of Ecological Significance	
Total chlordanes	Mercury
Lead	Cadmium
Copper	BEHP
Zinc	Dieldrin
Lindane (γ-HCH)	Cyanide
Tributyltin	Ethylbenzene
Perchlorate	$C_{10} - C_{12}$ TPH
Manganese	Vanadium

The distinction of "primary" vs "additional" contaminants of ecological significance is a technical distinction based on the "extent and magnitude of the contaminants". This distinction was important enough to be called out in the BERA executive summary, and therefore should be discussed in the RI exec summary as well since it provides the reader important context as to why there are two lists.

Thanks,

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